Case Report

An incidental case of successful pregnancy outcome and uneventful vaginal hysterectomy with pelvic floor repair in uterus didelphys unicollis at a remote place: A case report

Ashok Thorat[1], Aruna Kendre[2], Balasaheb Solunke[2], Digambar Munde[2], Nilesh Bhalerao[2]

From [1]District Civil Surgeon, [2]Medical Officer, SDH Kaij, Beed, Sub District Hospital Kallamb, Osmanabad, Maharashtra, India

Correspondence to: Dr. Ashok Thorat, District Civil Surgeon, Beed, Maharashtra, Pin - 431123, India. Email: ashoakthorat@gmail.com

Received - 03 July 2018 Initial Review - 18 July 2018 Accepted - 08 August 2018

ABSTRACT

Congenital malformations in a female genital tract are most commonly diagnosed in the reproductive period. Uterus didelphys, also known as a duplicated uterus, is an embryological abnormality, resulting from a complete failure of fusion of Mullerian ducts causing full uterine development to erroneously occur bilaterally. It is associated with many obstetrical complications and thus has clinical importance. Here, we present the case of an elderly patient with a history of third-degree uterovaginal prolapse with cystocele and rectocele at a remote place. During her reproductive life, she carried her pregnancies to term and delivered by full-term vaginal normal deliveries without any complications. An uncomplicated vaginal hysterectomy with pelvic floor repair was done, and the post-operative period was uneventful.

Key words: *General prolapse, Uterine didelyphys, Vaginal hysterectomy*

Abnormal and incomplete fusion of Mullerian duct in an embryonic period results in various uterine malformations. Uterus didelphys, also known as a duplicated uterus, is an embryological abnormality resulting from a complete failure of fusion of Mullerian ducts causing full uterine development to erroneously occur bilaterally.

Pregnancy in the uterus didelphys is uncommon; the incidence varies from 1 in 1500 to 1 in 142,000 pregnancies worldwide. Congenital malformations of the female genital tract have its representation in <15% of women [1]. Mullerian ducts develop often in association with Wolffian ducts, and abnormalities of the kidneys may be found in conjunction with uterine abnormalities. These malformations are rare but associated with primary infertility, spontaneous abortions, intrauterine growth restriction, difficult delivery, high incidence of uterine ruptures, increased cesarean deliveries, preterm deliveries, etc. [2].

According to the American Fertility Society, uterine malformations were classified as Class I - hypoplasia/agenesis, Class II - unicornuate uteri, Class III - uterus didelphys, Class IV - bicornuate uteri with incomplete fusion of the superior segments of the uterovaginal canal, Class V - septate uterus, Class VI - arcuate uterus, and Class VII - DES exposure uterine anomaly [3]. We report the case of an elderly patient with a history of third-degree uterovaginal prolapse with cystocele and rectocele at a remote place.

CASE REPORT

A 50-year-old female patient P4L4 presented to the Department with a chief complaint of mass per vagina for 7–8 years. She had no complaints except related to uterovaginal prolapse. She had four full-term vaginal deliveries, of which first two were at subdistrict hospital, third at a medical college, and the last at her home without any obstetric complication. Last delivery was 16 years ago. She had no ultrasonography done throughout her obstetric period. Her past and personal histories were not significant. She had not undergone sterilization.

She was an average built, and her systemic examination was within normal limit. All the vitals were normal. Local examination revealed a huge cystocele with rectocele with a uterine descent. A septum of 1 cm width was seen extending from the anterior vaginal wall to the posterior vaginal wall. Bimanual examination and ultrasound revealed normal size uterus and ovaries. The patient was prepared for vaginal hysterectomy.

During vaginal hysterectomy procedure (Fig. 1), both the horns had separate endometrial cavities, which opened into a common cervical canal, two horns uniformly separate; there is no communication in between 2 horns with single cervix and single vagina. A pouch of Douglas was opened easily, but the difficulty was noted during the opening of uterovesical pouch. Uterus didelphys unicollis was an incidental finding at this stage. Vaginal hysterectomy was done with pelvic floor repair, and the vaginal mass was excised (Fig. 2). Intra- and post-operative periods were uneventful. The patient was discharged on the 6th post-operative day, with stable vitals.

DISCUSSION

Uterus didelphys unicollis represents a uterine malformation due to a failure of the embryogenic fusion of Müllerian duct [1]. Each

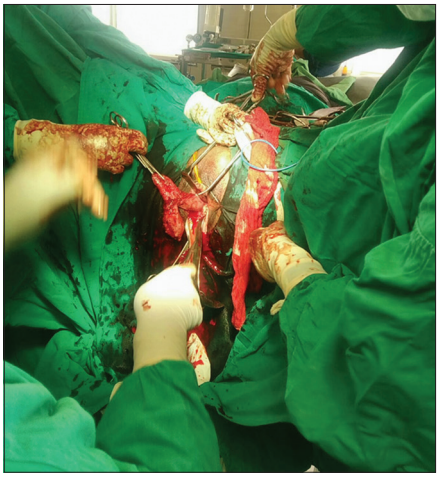

Figure 1: Vaginal hysterectomy procedure

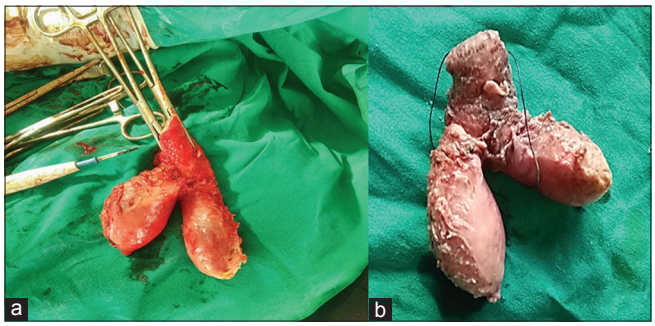

Figure 2: (a and b) Post-operative specimen

of the two uteri has a single horn. Cause for failure to fuse is unknown. The associated defects may be seen in the vagina and urinary system. The percentage of women with a double uterus is likely to be higher in women with a history of miscarriages and premature births [4]. Some women with this condition may remain asymptomatic and unaware of having a double uterus. The cause of spontaneous abortions and uterine rupture in a bicornuate and septate uterus is due to anatomic and histologic variations of myometrial structures. The muscle fibers are arranged irregularly and are "thin and week." Relative avascularity of the muscular elements has also been postulated as a cause of high incidence of uterine rupture and spontaneous abortions [5,6]. Pregnancies in a functional hemiuterus originating from a single Mullerian duct (one horn of uterus didelphys and unicornuate unicollis) have a better prognosis with regard to the fetal wastage rate than a pregnancy in a uterus bicornuate, septate, or arcuate [7].

As per history, during pregnancy, a prophylactic cervical encirclage was not done and all the three pregnancies progressed well till term without any complications. No obstetric scan was done at any time. Treatment was indicated only when uterine anomalies cause abortions, preterm deliveries, infertility, etc. Our case is unique since this condition went undetected for a longer period (postmenopausal period) and the patient's obstetric history was uneventful unlike most of the cases where such anomalies diagnosed early in life if such anomalies present with obstetric complications. Fertility was not impaired in a bicornuate uterus.

The best diagnostic tool for the diagnosis of such uterine malformations includes hysterosalpingography for the differentiation of a septate from a bicornuate uterus, transvaginal ultrasonography (diagnostic accuracy of 90–92%.), diagnostic "office" hysteroscopy for the direct visualisation of uterus, three dimensional ultrasonography for the diagnosis of congenital uterine anomalies, and magnetic resonance imaging of accuracy up to 100% in evaluation of Muellerian duct anomalies [8,9]. Intravenous pyelography (IVP) should be done preoperatively to trace ureters as it is needed during a vaginal hysterectomy, but in our case, IVP was not done as it was an incidental finding in our case.

CONCLUSION

Uterus didelphys unicollis is a rare entity and may remain undiagnosed even during pregnancy and childbirth. They may be incidentally diagnosed during the process of vaginal hysterectomy. For such type of anomalies, treatment is not always required, and it may be indicated only when double uterus causes some complications.

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Funding: None; Conflict of Interest: None Stated.

How to cite this article: Thorat A, Kendre A, Solunke B, Munde D, Bhalerao N. An incidental case of successful pregnancy outcome and uneventful vaginal hysterectomy with pelvic floor repair in uterus didelphys unicollis at a remote place: A case report. Indian J Case Reports. 2018;4(4):316-317.

Doi: 10.32677/IJCR.2018.v04.i04.021